

(No Model.)

2 Sheets—Sheet 1.

J. N. B. MOORE.

MEANS FOR SUSPENDING ELECTRIC LIGHTS OR GAS OR OIL LAMPS.

No. 348,407.

Patented Aug. 31, 1886.

Fig. 1.

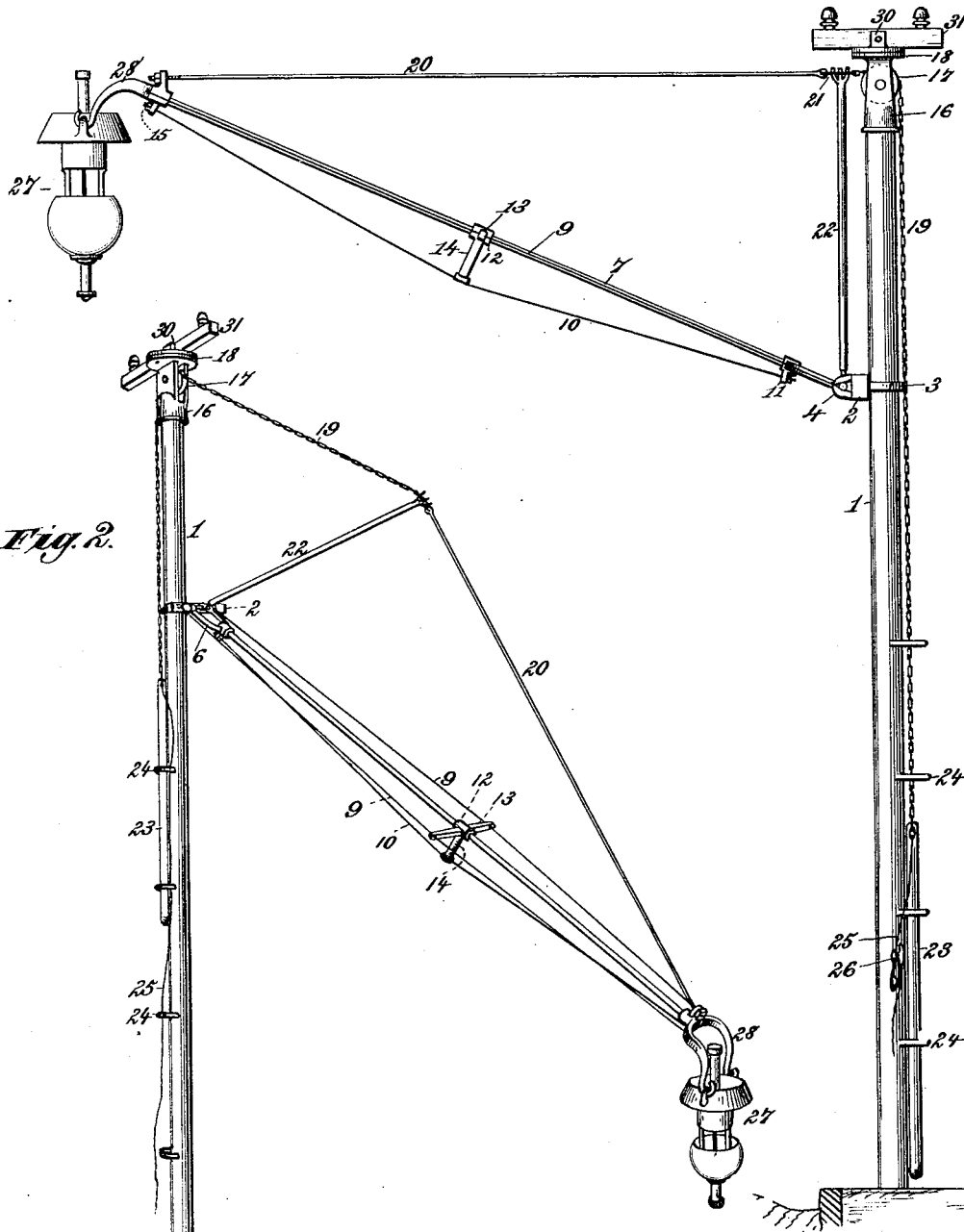
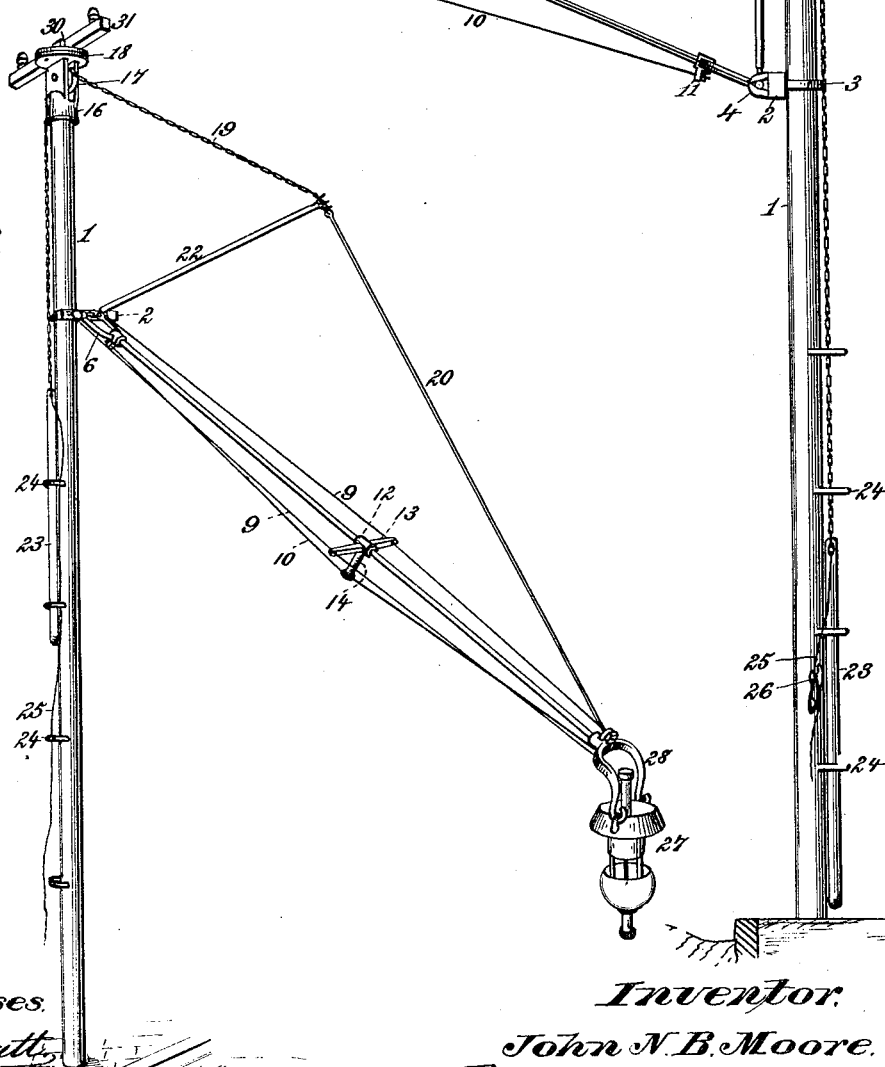


Fig. 2.



Witnesses.

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2 Sheets—Sheet 2.

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Fig. 3.

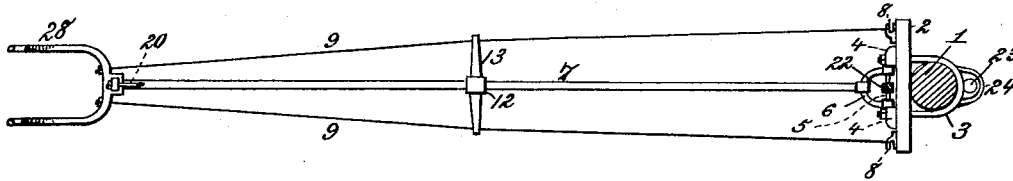


Fig. 4.

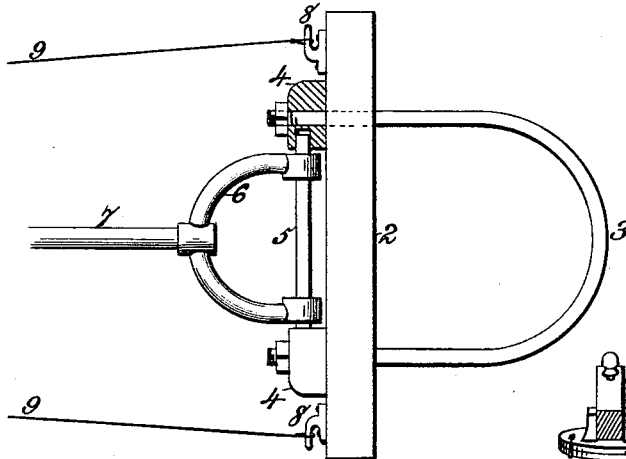


Fig. 6.

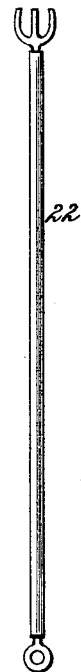


Fig. 5.

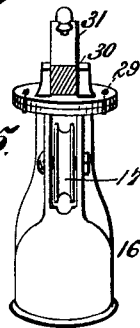
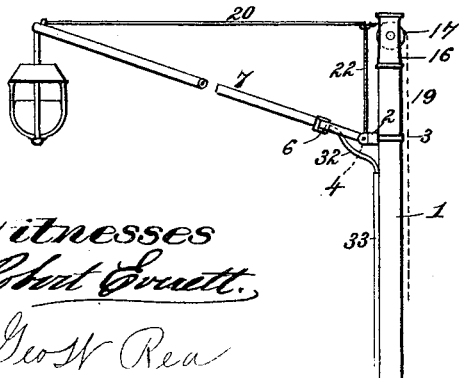


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN N. B. MOORE, OF HARTFORD, CONNECTICUT.

MEANS FOR SUSPENDING ELECTRIC LIGHTS OR GAS OR OIL LAMPS.

SPECIFICATION forming part of Letters Patent No. 348,407, dated August 31, 1886.

Application filed January 23, 1886. Serial No. 189,511. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. B. MOORE, a subject of the Queen of Great Britain, residing at Hartford, in the county of Hartford and State of Connecticut, have invented new and useful Improvements in Means for Sus-
5 pending Electric Lights or Gas or Oil Lamps, of which the following is a specification.

This invention relates to an electric-light
10 mast, which, with slight modifications, may also be adapted for supporting gas or oil lamps; and the invention consists in certain novel features of construction and combinations of parts, which will be hereinafter particularly speci-
15 fied.

In the annexed drawings, illustrating the invention, Figure 1 is a side elevation of an electric-light mast embodying my improve-
20 ments. Fig. 2 is a perspective view of the same, showing the lamp-support lowered near the ground for convenience of giving it any requisite attention. Fig. 3 is a plan view, partly in section, on the line *x x* of Fig. 1 and with the lamp removed. Figs. 4, 5, and 6
25 are detail views, to be hereinafter explained. Fig. 7 represents a modification, by which the mast is adapted to support a gas-light.

About seven feet (more or less) from the top of the mast 1 is fixed a cross-arm, 2, by
30 means of a metallic strap, 3, which partly surrounds said mast. The ends of this strap 3 pass through the cross-arm 2, and also through socketed bearings 4, that receive the ends of a rod, 5, to which is pivoted a yoke, 6, that
35 supports the mast-arm 7, as shown in Fig. 4.

Near each end of the cross-arm 2 is secured a cleat, 8, and to these cleats are attached guy-
40 rods 9, which extend to the outer end of the pivoted mast-arm. Beneath this mast-arm is a stay-rod, 10, one end of which is secured to the outer end of said arm, and the other end to a lug, 11, on the under side of the yoke 6. At or near the middle of the mast-arm 7 is
45 fixed a T, 12, to which is attached a horizontal expander, 13, for the guy-rods 9, and a vertical expander, 14, for the stay-rod 10, said rods being tightened by turn-buckles or nuts
15 at either or both ends of the pivoted mast-arm.

To the upper end of the mast 1 is secured a
50 head or cap, 16, which supports a pulley, 17,

and a turn-table, 18, the latter being located above the pulley-support. The pulley 17 projects an inch or so at the rear side of the cap 16, and thus permits a free movement of a
55 chain or rope, 19, one end of which is secured to a rod, 20, which extends to the forward end of the pivoted mast-arm, where it is securely attached. The rear end of the pull-rod 20 is secured by means of a loop, 21, to the upper
60 forked end of a prop, 22, the lower end of which is hinged or pivoted to the fixed cross-arm 2, and thus supports the pull-rod, to facilitate the working of the mast-arm and its connected counterbalance-weight. The form
65 of this prop 22 is shown in Fig. 6.

To the lower end of the chain 19 is attached an elongated weight, 23, which is adapted to
70 move in guides 24, attached to the mast. This weight 23 is not quite sufficient to counterbalance the pivoted mast-arm and attached lamp, and when the lamp is elevated the lower-
75 ed weight is secured by means of any suitable fastening. A hoisting-rope, 25, is also attached to the weight 23 or to the chain 19, when required, and when the weight is low-
80 ered said weight 23 may be secured to a hook or other fastening, 26, thus holding the pivoted mast-arm and attached lamp in an elevated position. A lamp, 27, of any approved
85 form, may be suspended from a forked lamp-supporting arm, 28, at the outer end of the pivoted mast-arm.

The turn-table 18 consists of a fixed lower disk and a rotary upper disk connected by
85 pins or bolts 29, as shown in Fig. 5, and the upper disk is provided with a socket, 30, for receiving a cross-arm, 31, which supports the line-wires. By removing the bolts or pins 29 the turn-table and attached arm 31 can be ad-
90 justed to any desired angle, according to the direction of the line-wires. If it is desired to employ this mast for suspending and extending a gas or oil lamp, the turn-table or line-wire support can be dispensed with. When
95 employed as a support for a gas-light, the pivoted mast-arm 7 will be made tubular or have a gas-pipe attached thereto, said pipe or tubular arm having a flexible connection, 32, with a gas-pipe, 33, secured to the mast 1, as shown
100 in Fig. 7. This mast, with its pivoted arm, affords a safe and convenient means of elevat-

ing and extending an electric or other lamp in such a manner that the lamp will be readily accessible for all necessary purposes. It will be readily understood that, owing to the gravity of the counterbalance-weight 23, but little exertion is required to elevate the pivoted mast-arm 7 and attached lamp. This weight, however, is insufficient to maintain the mast-arm in position when the rope 25 is unfastened. It is therefore only necessary to pay out this rope 25 gradually when it is required to lower the lamp.

Heretofore an electrical-lamp support has been composed of a post or upright, a boom or arm pivoted thereto and projecting longitudinally beyond such pivot to form two opposite arms, one carrying a lamp and the other a weight, and a jointed rod or cords or chains for swinging the boom. A portable derrick has also been composed of a mast having a pulley at its upper end, a boom pivoted at one end to the mast, and a cable passing along the latter over the pulley and engaging a pulley-block on the mast-arm to raise and lower it. Such prior constructions do not, however, constitute my invention.

Having thus described my invention, what I claim is—

1. The combination, in an electrical-lamp support, of the upright mast having a pulley at its upper end, a mast-arm having its inner end pivotally connected with the mast and provided at its outer end with a lamp-supporting bracket, a chain or rope extending vertically along the mast and over the pulley

and connected with the outer end of the mast-arm, and a weight secured to the lower end of the chain or rope, substantially as described.

2. The combination, with a mast having a pulley, a pivoted mast-arm or lamp-support, and guides on the mast, of a chain or rope connected with said pivoted mast-arm and an elongated weight attached to said chain and movable in the guides, substantially as described.

3. The combination, with a mast having a pulley at its upper end, of a cross-arm rigidly secured to the mast, socketed bearings attached to said cross-arm, a rod having its ends secured in the bearings, a lamp-supporting mast-arm having a yoke at its inner end pivoted on the rod, a chain or rope passing vertically along the mast and over the pulley and connected with the mast-arm, and a weight secured to the lower end of the chain, substantially as described.

4. The combination of a mast having a pulley and a fixed cross-arm, a pivoted mast-arm connected with said cross-arm, a pull-rod for the pivoted mast-arm, a prop for said pull-rod, a chain or rope passed over the pulley and connected with said pull-rod, and a weight attached to said chain, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN N. B. MOORE.

Witnesses:

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WILLIAM FRANCIS.